

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

PULSE OUTPUT CIRCUIT, SHIFT REGISTER, AND DISPLAY DEVICE

the specification of which:

- ☐ is attached hereto.
- ☐ was filed on _____ as Application Serial No. _____ and was amended on _____.
- ☐ was described and claimed in PCT International Application No. _____ filed on _____ and as amended under PCT Article 19 on _____.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

U.S. Serial No.	Filing Date	Status

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Serial No.	Filing Date	Status

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

Country	Application No.	Filing Date	Priority Claimed
Japan	2001-160140	May 29, 2001	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Combined Declaration and Power of Attorney

Page 2 of 2 Pages

John F. Hayden, Reg. No. 37,640; Scott C. Harris, Reg. No. 32,030; Michael McKeon, Reg. No. 37,888; Linda Liu Kordziel, Reg. No. 39,732; William E. Booth, Reg. No. 28,933; Ruffin B. Cordell, Reg. No. 33,487; John W. Freeman, Reg. No. 29,066; Timothy A. French, Reg. No. 30,175; G. Roger Lee, Reg. No. 28,963; Ralph A. Mittelberger, Reg. No. 33,195; John B. Pegram, Reg. No. 25,198; Rene D. Tegtmeyer, Reg. No. 33,567; Charles C. Winchester, Reg. No. 21,040; William D. Hare, Reg. No. 44,739; James E. Mrose, Reg. No. 33,264; Lauren A. Degnan, Reg. No. 40,584; Andrew F. Bodendorf, Reg. No. 39,537; Robert V. Racunas, Jr., Reg. No. 43,027; Diana DiBerardino, Reg. No. 45,653; W. Karl Renner, Reg. No. 41,265; Joseph F. Key, Reg. No. 44,827; Harold H. Fox, Reg. No. 41,498; Scott R. Boalick, Reg. No. 42,337; Joseph V. Colaianne, Jr., Reg. No. 39,948; Gregory A. Walters, Reg. No. 41,366; R. Whitney Winston, Reg. No. 44,432; Bing Ai, Reg. No. 43,312; N. Thane Bauz, Reg. No. 41,604; Robert Bedgood, Ph.D., Reg. No. 43,488; Gregory P. Einhorn, Reg. No. 38,440; Diane L. Gardner, Reg. No. 36,518; James T. Hagler, Reg. No. 40,631; Kenyon S. Jenckes, Reg. No. 41,873; Samuel S. Lee, Reg. No. 42,791; Christopher S. Marchese, Reg. No. 37,177; Todd G. Miller, Reg. No. 42,003; Shekhar Vyas, Reg. No. 46,166; and John R. Wetherell, Jr., Ph.D., Reg. No. 31,678.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

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Inventor's Signature: Shou Nagao

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UNITED STATES
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JULY 22, 2002

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Under Secretary of Commerce For Intellectual Property and
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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

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BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

NAGAO, SHOU

DOC DATE: 05/10/2002

ASSIGNOR:

AZAMI, MUNEHIO

DOC DATE: 04/05/2002

ASSIGNOR:

TANADA, YOSHIFUMI

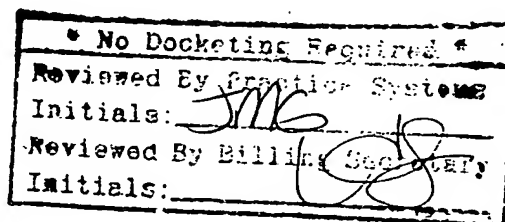
DOC DATE: 05/09/2002

ASSIGNEE:

SEMICONDUCTOR ENERGY LABORATORY
CO., LTD.
398 HASE ATSUGI-SHI
KANAGAWA-KEN 243-0036, JAPAN

SERIAL NUMBER: 10145033 ✓
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FILING DATE: 05/15/2002 ✓
ISSUE DATE:

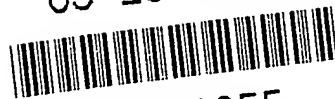


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ANTIONE ROYALL, EXAMINER
ASSIGNMENT DIVISION
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05-23-2002

Substitute Form PTO-1595
 Attorney Docket No.: 12732-103001
 Client's Ref. No.: US5749



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SHEET

10/145033
 05/16/02

Commissioner for Patents: Please record the attached original document(s) or copy(ies).

1. Name of conveying party(ies):

(1) Shou Nagao; (2) Munehiro Azami; and
 (3) Yoshifumi Tanada

Additional name(s) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies):

Semiconductor Energy Laboratory Co., Ltd.
 398 Hase Atsugi-shi
 Kanagawa-ken 243-0036
 JAPAN

3. Nature of conveyance:

- ☒ Assignment
☐ Merger
☐ Security Agreement
☐ Change of Name
☐ Other:

Execution Dates:

(1) May 10, 2002; (2) April 5, 2002; and
 (3) May 9, 2002

Additional names/addresses attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed with a new application, the execution dates of the application are:

(1) May 10, 2002; (2) April 5, 2002; and (3) May 9, 2002

A. Patent Application No(s):

B. Patent No(s):

Additional numbers attached? ☐ Yes ☒ No

5. Name/address of party to whom correspondence concerning document should be mailed:

JOHN F. HAYDEN
 Fish & Richardson P.C.
 1425 K Street, N.W.
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 Washington, DC 20005-3500

6. Total number of applications/patents involved: 1

7. Total fee (37 CFR §3.41): \$40

- ☒ Enclosed
☐ Authorized to charge Deposit Account.

8. Deposit Account No.: 06-1050

Please apply any additional charges, or any credits, to our
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9. Statement and Signature: *To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

John F. Hayden
 Reg. No. 37,640
 Name of Person Signing

Signature

May 15, 2002
 Date

Total number of pages including coversheet, attachments and document: 2

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ASSIGNMENT

For valuable consideration, We, Shou NAGAO of Atsugi, Kanagawa, Japan, Munehiro AZAMI of Atsugi, Kanagawa, Japan and Yoshifumi TANADA of Atsugi, Kanagawa, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

398, Hase, Atsugi-shi, Kanagawa-ken 243-0036 Japan

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled

PULSE OUTPUT CIRCUIT, SHIFT REGISTER, AND DISPLAY DEVICE

filed on _____, and assigned U.S. Serial Number _____, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Signature: Shou NAGAO
Name: Shou NAGAO
Date: 05 / 10 / 2002

Signature: Munehiro Azami
Name: Munehiro AZAMI
Date: 04 / 05 / 2002

Signature: Yoshifumi Tanada
Name: Yoshifumi TANADA
Date: 05 / 09 / 2002